

### **REMARKS**

The Office Action of February 7, 2006 has been reviewed and the Examiner's comments carefully considered. Claims 9-16 are currently pending in this application, and claim 9 is in independent form.

Claims 9-16 stand rejected under 35 U.S.C. § 102(b) as being anticipated or fully taught by United States Patent No. 5,528,719 to Yamada (hereinafter "the Yamada patent"). In view of the following remarks, the Applicants respectfully request reconsideration of this rejection.

As defined by independent claim 9, the present invention is directed to a fiber array for optical communication. The fiber array includes a substrate for inserting optical fibers therein and a press plate for pressing and fixing the inserted optical fibers. The substrate has a plurality of grooves into which the optical fibers are inserted. The accuracy of the center-to-center dimension between the grooves adjacent to each other is within  $\pm 0.5 \mu\text{m}$ , and the degree of parallelization in the groove length direction between the grooves adjacent to each other is within  $\pm 0.1$  degree.

The Yamada patent discloses an optical fiber guide including a silicon single-crystal substrate upon which three parallel rows of grooves of inverted trapezoidal cross section are etched via anisotropic etching. Three optical fibers are positioned in grooves in substrate and secured by a retaining plate (see Fig. 1(g)). The Yamada patent further discloses that the positions of all the bottom surfaces of the three rows of grooves are flush with each other within a range of  $\pm 0.1 \mu\text{m}$  (see column 12, lines 8-12).

However, the accuracy of the positions of the bottom surfaces of the grooves is not equivalent to the accuracy of the center-to-center dimension between the grooves. Therefore, the Yamada patent fails to teach or suggest that the accuracy of the center-to-center dimension between the grooves adjacent to each other is within  $\pm 0.5 \mu\text{m}$  as required by independent claim 9. Instead, the accuracy of the center-to-center dimension between the grooves adjacent to each other in the optical fiber guide disclosed by the Yamada patent is **not** within  $\pm 0.5 \mu\text{m}$  because the bottom surface of each groove is flat or smooth as illustrated in Fig. 1(f).

The Yamada patent also does not teach or suggest that the degree of parallelization in the groove length direction between the grooves adjacent to each other is within  $\pm 0.1$  degree as required by independent claim 9. The Yamada patent only provides cross-sectional views of the optical fiber guide in the figures. Therefore, the degree of parallelization in the groove length direction of the optical fiber guide of the Yamada cannot be determined from the figures. Furthermore, the Yamada patent discloses that if the orientation of the face of the substrate is in the (100) orientation, then the grooves extending parallel to the (111) plane can be formed in two mutually perpendicular directions on the substrate (see column 6, lines 4-11).


For the foregoing reasons, the Applicants believe that the subject matter of independent claim 9 is not anticipated by the Yamada patent. Reconsideration of the rejection of claim 9 is respectfully requested.

Claims 10-16 depend from and add further limitations to independent claim 9 or a subsequent dependent claim and are believed to be patentable for the reasons discussed hereinabove in connection with independent claim 9. Reconsideration of the rejection of claims 10-16 is respectfully requested.

Based on the foregoing amendments and remarks, reconsideration of the rejections and allowance of pending claims 9-16 are respectfully requested.

Respectfully submitted,

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